REMARKS

Claims 1-25 and 27-31 are pending in this application. By this Amendment, the specification and claims 1, 6, 8, 12, 18, 20, 22, 27 and 28 are amended. Various amendments are made to the claims for clarity and are unrelated to issues of patentability.

The Office Action rejects claims 1-3, 5-6, 11, 22-26, 28 and 31 under 35 U.S.C. §102(b) over U.S. Patent 5,831,970 to Arao. The Office Action also rejects the remaining claims under 35 U.S.C. §103(a) over Arao in view of U.S. Patent 6,906,997 to Rajan, U.S. Patent 6,317,426 to Afandor et al. (hereafter Afandor), U.S. Patent 5,479,608 to Richardson, U.S. Patent 5,159,638 to Naito et al. (hereafter Naito), U.S. Patent 5,263,017 to Nakajima et al. (hereafter Nakajima) and/or U.S. Patent 6,226,111 to Chang et al. (hereafter Chang). The rejections are respectfully traversed.

Independent claim 1 recites determining whether a priority of the SF <u>is higher than a priority of an existing SF</u> if the SF is determined to have occurred, determining whether a target station uses a same protocol as the source station if the priority of the SF is determined to be higher than the priority of the existing SF, performing a switching operation if the same protocol is determined to be used by the target station, and transmitting a switching notification signal from the source station to the target station.

Arao does not teach or suggest all these features of independent claim 1. That is, the Office Action states that Arao discloses determining whether a priority of the SF is higher than a priority of an existing SF if the SF is determined to have occurred. The Office Action cites Arao's col. 3, lines 4-5 and lines 6-8. However, this does not relate to determining whether a

priority of the SF is higher than an existing SF if the SF is determined to have occurred. Rather,

this section merely describes that SF switching requests are higher priority than SD switching

requests. However, claim 1 relates to a priority of a SF and a priority of an existing SF. Arao

discloses switching sequences using K1 and K2 bytes at col. 3, line 60-col. 4, line 18. More

specifically, Arao's col. 4, lines 6-18 specifically relates to the detection of SF and the subsequent

operations thereof. Arao also shows the bi-directional mode in Fig. 25B. However, Arao does

not teach or suggest determining whether priority of the SF is higher than a priority of the

existing SF if the SF is determined to have occurred. While an SD may have a lower priority

than a SF switching function, this still does not teach or suggest the claimed features of

determining whether the priority of the SF is higher than a priority of an existing SF.

Arao also does not teach or suggest determining whether a target station uses a same

protocol as a source station if the priority of the SF is determined to be higher than a priority of

the existing SF. As stated above, Arao does not suggest determining priority of a SF with

relation to an existing SF. Accordingly, Arao does not teach or suggest determining whether a

target station uses a same protocol as the source station if the priority of the SF is determined to

be higher than the priority of the existing SF. Still further, Arao does not teach or suggest

performing a switching operation if the same protocol is determined to be used by the target

station. That is, the switching operation being performed is based on the protocol determination

which is in turn based on the priority determination. As stated above, Arao does not teach or

suggest these features. The other applied references do not teach or suggest the features of

independent claim 1 missing from Arao. Accordingly, independent claim 1 defines patentable

subject matter.

Independent claim 12 defines patentable subject matter for at least similar reasons. That

is, independent claim 12 recites determining whether a new signal fail (SF) has occurred in a

working side of a source station, the working side being in an active mode, and determining

whether a priority of the new SF is higher than a priority of a current SF if the new SF is

determined to have occurred. Still further, independent claim 12 recites determining whether a

target station uses a same protocol as the source station if the priority of the new SF is

determined to be higher than the priority of the current SF. Even still further, independent

claim 12 recites determining whether a protection side of the source station is in a normal state

after the target station is determined to be of a same system type as the source station based on

the protocol and performing a switching operation if the protection side of the source station is

determined to be in its normal state, and transmitting a source switching notification signal to

the target station.

For at least the reasons set forth above, Arao does not teach or suggest these features.

Additionally, the Office Action states that Arao does not teach or suggest determining whether a

protection side of the source station is in a normal state if the target station is determined to be

of a same system type based on a protocol. The Office Action cites Nakajima's col. 5, lines 38-

42 for features relating to checking whether a protection line is in a normal state before

performing a switching operation. However, applicant respectfully submits that there is no

suggestion to combine Nakajima and Arao as alleged in the Office Action. Further, even if

combined, there still is no suggestion for the claimed features. More specifically, Arao clearly describes its switching operations in col. 4, lines 6-18 and as shown in Fig. 25B. There is no suggestion for the incorporation of various features of Nakajima into Arao so as to reach the features of independent claim 12. Additionally, there is no suggestion in Nakajima for determining whether a protection side is in a normal state after the target station is determined to be of a same system type. The Office Action appears to assert that the determination of the same type is based on when the target receives the message. However, this does not suggest the claimed features. Further, Nakajima may not be combined with Arao in order to reach the specific features discussed above. Thus, Arao and Nakajima do not teach or suggest all the features of independent claim 12. The other applied references do not teach or suggest the missing features of independent claim 12. Thus, independent claim 12 defines patentable subject matter.

Independent claim 20 recites determining whether a priority of the SF is higher than a priority of an existing SF, performing a switching operation from the protection side thereof to a working side of the source station after determining whether a signal fail has occurred and after determining that the priority of the SF is higher than the priority of the existing SF, and transmitting a switching notification signal to a target station. Independent claim 20 also recites upon receiving the switching notification signal at the target station, transmitting a switching notification signal from the target station to the source station and performing a switching operation from a protection side of the target station to a working side thereof.

As stated above, Arao does not teach or suggest determining whether a priority of the SF is higher than a priority of an existing SF. Additionally, Arao and Chang do not teach or suggest all the features of independent claim 20. That is, the Office Action agrees that Arao does not teach that when failure occurs in a protection side, switching is done from the protection side to the working side. The Office Action then appears to rely on Chang for these features. However, there is no explicit suggestion in the applied references for this modification. That is, the Office Action clearly relies on impermissible hindsight by relying on applicant's specification in order to provide the motivation to combine these references. As such, the combination is improper. The other applied references do not teach or suggest the missing features of independent claim 20. Accordingly, independent claim 20 defines patentable subject matter at least for this reason.

Independent claim 22 recites a first station and a second station, wherein the first station is configured to determine whether a signal fail has occurred at the first station, determine whether the second station uses a same protocol as the first station, and perform a switching operation if the protocol is determined to be the same. Independent claim 22 further recites that the first station determines whether a priority of the signal fail is higher than a priority of an existing signal fail when a signal fail is detected while the existing signal fail is present. For at least the reasons set forth above, independent claim 22 defines patentable subject matter.

Each of the dependent claims depends from one of the independent claims and therefore defines patentable subject matter at least for this reason. In addition, the dependent claims recite features that further and independently distinguish over the applied references.

For example, dependent claim 4 recites that priority is higher when a protection side of the source station is active, than when a working side of the source station is active. In rejecting dependent claim 4, the Office Action relies on a combination of Arao and Rajan. In particular, the Office Action states that Rajan discloses (in col. 4, lines 66-67) that a protection failure is the highest priority failure. However, dependent claim 4 recites that priority is higher when a protection side of the source station is active, than when a working side of the source station is active. In other words, dependent claim 4 relates to a protection side and a working side and whether one side is active. Rajan's col. 4, lines 66-67 does not teach or suggest these features. Thus, dependent claim 4 defines patentable subject matter at least for this additional reason. Dependent claims 13 and 27 define patentable subject matter for at least similar reasons.

Dependent claim 9 (and similarly dependent claim 29) recites that the SF is at least one of a Loss of Signal (LOS) condition, a Loss of Frame (LOF) condition, and an Alarm Indication Signal (AIS). The Office Action states that Arao does not teach these features. The Office Action cites Richardson to show the missing features. However, Richardson may not be combined with Arao in order to reach the features of dependent claim 9 as well as include the claim 1 feature of "determining whether a priority of the SF is higher than a priority of an existing SF if the SF is determined to be occurred." In other words, the Office Action's reliance on Arao to show features of priority may not be combined with Richardson's col. 9, lines 6-7 to reach the features of dependent claim 9. In other words, there is no suggestion for a determination of priority with regard to Richardson's col. 9, lines 6-7. As such, dependent claims 9 and 29 define patentable subject matter at least for this additional reason.

Furthermore, dependent claim 11 recites that if a signal degrade (SD) status is detected at

the source station having a higher priority then an existing SD status, the switching operation is

performed if a data-grade signal is being transferred. The Office Action states that Arao discloses

these features as it discloses signal degrade at col. 3, lines 1-3 and discloses different priorities

among signal requests at col. 3, lines 30-45. However, this does not relate to a higher priority of

a signal degrade status as compared to an existing SD status. Accordingly, dependent claim 11

defines patentable subject matter at least for this additional reason.
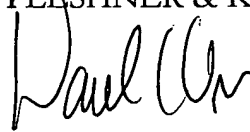

CONCLUSION

In view of the foregoing, it is respectfully submitted that the application is in condition

for allowance. Favorable consideration and prompt allowance of claims 1-25 and 27-31 are

earnestly solicited. If the Examiner believes that any additional changes would place the

application in better condition for allowance, the Examiner is invited to contact the undersigned

attorney, **David C. Oren**, at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is

hereby made. Please charge any shortage in fees due in connection with the filing of this,

concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and

please credit any excess fees to such deposit account.

Respectfully submitted,
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